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compl.

46. (Amended) A method of controlling a mobile station comprising:
determining a position of said mobile station;
performing a periodic task, wherein the frequency of performing said task is a
function of said position of said mobile station; and
wherein said frequency of performing said periodic task is a function of the
relative position of said mobile station with respect to a first base station
serving said mobile station and at least one additional base station.

47. (Amended) The control method of claim 46 wherein said frequency of performing
said periodic task is a function of the mobility of said mobile station.

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49. (Amended) A method of controlling a mobile station comprising:
determining a position of said mobile station;
performing a periodic task, wherein the frequency of performing said task is a
function of said position of said mobile station; and
wherein said frequency of performing said periodic task is a function of the length of
time said mobile station remains in said position.

REMARKS

In the specification

Applicant has amended the specification to correct a minor typographical error,
without adding new matter.

In the claims:

Overview of Claim Amendments

Claims 1, 31, and 44 have been canceled. Formerly dependent claims 3, 8, 33, 36, 46 and 49 have been amended to appear in independent form, having incorporated their respective base claims. Further, claims 2, 9-14, 32, 34-35, 37, 45, and 47 have been amended to depend directly from their respective (newly) independent claims. Additionally, claim 49 has been amended to correct a typographical error.

35 U.S.C. §102(e) Rejections

Claims 3, 33, and 46

Independent claim 3 requires periodically performing channel quality measurements "wherein said frequency of performing said channel quality measurements is a function of the relative position of said mobile station with respect to a first base station serving said mobile station and at least one additional base station." Thus, the frequency of performing the relevant channel quality measurements is required to be dependent on the relative position of the mobile station with respect to at least two different base stations. By way of example, as described in the specification, the mobile station may determine its distance from two different base stations (e.g., both the serving base station and at least one additional base station) and vary the frequency of performing the channel signal quality measurements dependent on the relative ratio of the distances to the two base stations. Souissi, in contrast, at most varies the scanning rate of a subscriber unit based on its distance to a single base station, not at least two different base stations. Only after choosing a target system does the Souissi subscriber unit scan at a rate based on distance, but then only on the distance to the single identified target system. Thus, at most Souissi discloses determining a scan rate as a

function of the distance to one base station, not as a function of the relative position of the subscriber unit with respect to two different base stations, as required by claim 7. Thus, the §102(e) rejection is improper. Indeed, because referencing only a single base station does not even suggest basing the scanning rate on a function of the relative position of mobile station to two different base stations, it is respectfully submitted that Applicant's claim 3 defines patentable subject matter over the cited art. Accordingly, Applicant respectfully requests the allowance of independent claim 3, as well as its dependent claims 4-5, and 10-14.

With respect to newly independent claim 33, it requires the mobile station to include control logic "wherein said control logic varies the frequency of performing said channel quality measurements based on the relative position of said mobile station with respect to a first base station serving said mobile station and at least one additional base station." Further, independent claim 46 requires periodically performing a task "wherein said frequency of performing said periodic task is a function of the relative position of said mobile station with respect to a first base station serving said mobile station and at least one additional base station." For the reasons stated above with respect to claim 3, Applicant submits that both independent claims 33 and 46 define patentable subject matter over the cited art. Accordingly, Applicant respectfully requests the allowance of independent claims 33 and 46, as well as their respective dependent claims 34-35, 37 and 47-48.

Claims 8, 36, and 49

Independent claim 8 requires performing channel quality measurements "wherein said frequency of performing said channel quality measurements is a function of the length of time said mobile station remains in said position." This claim covers an embodiment where, for example, the frequency of performing channel quality

measurements decreases in proportion to the length of time a mobile remains stationary. While Souissi may vary the scan rate of the mobile according to its distance while moving, Souissi does not disclose varying the frequency of the scan rate as a function of the length of time the mobile station remains in one position.

Applicant readily admits that as the mobile station in Souissi nears a chosen target system, the scan rate changes accordingly. However, Souissi determines the scan rate only if the mobile station is moving towards the target system, see column 6, lines 54-57 which reveal that the processing system "...then checks 614 whether the rate of change is negative (distance getting smaller). If not, the flow returns to step 602." Indeed, a close inspection of Figure 6 makes clear that the mobile station will bypass scanning (block 616) if the rate of change in the distance is zero (i.e. the mobile is stationary). Therefore, Souissi fails to disclose varying the frequency as a function of the length of time the mobile station remains in one position. As such, Souissi fails to disclose at least one limitation in claim 8, and therefore, cannot anticipate claim 8 under §102(e). Accordingly, Applicant submits that (newly) independent claim 8 defines patentable subject matter over the cited art, and respectfully requests the allowance of claim 8, and its dependent claims 2 and 9.

With respect to independent claim 36, it explicitly requires control logic that "varies the frequency of performing said channel quality measurements based on the length of time said mobile station remains in said position." Further, independent claim 49 requires performing a periodic task "wherein said frequency of performing said periodic task is a function of the length of time said mobile station remains in said position." For the reasons stated above with respect to claim 8, Applicant submits that both claims 32 and 49 define patentable subject matter over the cited art, and respectfully requests the allowance of independent claims 32 and 49, and their respective dependent claims 36 and 45.

Claims 15 and 38

Independent claim 15 explicitly requires periodically updating the position of a mobile station "...wherein the frequency of said updating is a function of said position of said mobile station." While Souissi may periodically update position information, Souissi does not teach varying the frequency of updating (i.e. changing the time period between successive updates) as a function of the position of the mobile station. In contrast, Souissi teaches exactly the opposite; that is a uniform frequency of updating (i.e. a constant period of time between successive updates) as a function of elapsed time. This is clear from reading column 6 of Souissi, lines 42-45, which reveals that the "processing system 206 then checks 608 whether it is time to make another estimate of the location. (Measurements preferably are made at a predetermined rate, e.g., every minute.)" This passage, read in conjunction with Figure 6, makes it clear that Souissi does not teach varying the frequency of the updates, and certainly not as a function of the position of the mobile station; in fact, Souissi fails to vary the frequency of the updates altogether. Applicant submits that uniform updates, preordained to occur at predetermined time intervals, do not satisfy the requirements of claim 15. Thus, the §102(e) rejection over Souissi is improper, and claim 15 defines patentable subject matter over the cited art. Accordingly, Applicant respectfully requests the allowance of claim 15, as well as its dependent claims 16-26.

Regarding independent claim 38, it requires control logic for controlling the transceiver and the positioning receiver "...wherein said control logic varies the frequency of determining said position of said mobile station as a function of said position." For logic similar to that of independent claim 15, Souissi fails to teach control logic that varies the frequency of determining the location of a mobile as a function of the mobile position. Therefore, Souissi fails to show this limitation, and cannot anticipate

claim 38 under §102(e). Accordingly, Applicant respectfully requests the allowance of claim 38, as well as its dependent claims 39-43.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment.

Respectfully submitted,
COATS & BENNETT, P.L.L.C.

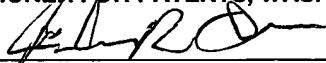
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

The paragraph beginning on page 15, line 3, has been amended as follows:

When mobility is a variable controlling these measurements, the mobile station 16 may base these measurements on mobility alone, relative to a single base station 12, relative to multiple base stations 12, or combine a mobility determination with relative position to one or more areas or cells. The frequency at which these channels are monitored or which channels are monitored are also subject to influence by other factors, such as signal strength, signal quality, etc. The mobile station 16 then determines whether or not to change serving cell for cell reselection based on the monitoring of the channels on the neighbor list and the serving base station (block 126). If cell reselection occurs, the mobile station 16 may be required to register with the cellular system in order to identify [its presence] its presence in the new paging area if necessary. The process will repeat until a new call is arranged or the phone is completely powered down.

In the claims:

Claims 2, 3, 8-13, 32-37, 45-47, and 49 have been amended as follows:

2. (Amended) The channel selection method of claim [1] 8 wherein said frequency of performing said channel quality measurements is a function of the relative position of said mobile station with respect to a first base station serving said mobile station.

3. (Amended) [The channel selection method of claim 1] A method of channel selection for a mobile station comprising:
determining a position of said mobile station;
periodically performing channel quality measurements of signals transmitted from
one or more base stations, wherein the frequency of performing said channel
quality measurements is a function of said position of said mobile station;
and
wherein said frequency of performing said channel quality measurements is a
function of the relative position of said mobile station with respect to a first
base station serving said mobile station and at least one additional base
station.

8. (Amended) [The channel selection method of claim 6] A method of channel selection for a mobile station comprising:
determining a position of said mobile station;
periodically performing channel quality measurements of signals transmitted from
one or more base stations, wherein the frequency of performing said channel
quality measurements is a function of said position of said mobile station;
and
wherein said frequency of performing said channel quality measurements is a
function of the length of time said mobile station remains in said position.

9. (Amended) The channel selection method of claim [1] 8 wherein said channel quality measurements are performed by said mobile station while said mobile station is in an idle mode.

10. (Amended) The channel selection method of claim [1] 3 wherein said channel quality measurements are performed by said mobile station while said mobile station is engaged in a packet switched call.

11. (Amended) The channel selection method of claim [1] 3 wherein said channel quality measurements are performed by said mobile station while said mobile station is engaged in a circuit switched call.

12. (Amended) The channel selection method of claim [1] 3 wherein said mobile station uses said channel quality measurement for cell reselection.

13. (Amended) The channel selection method of claim [1] 3 further including transmitting said channel quality measurements from said mobile station to a first base station serving said mobile station.

32. (Amended) The mobile station of claim [31] 36 wherein said control logic varies the frequency of performing said channel quality measurements based on the relative position of said mobile station with respect to a first base station serving said mobile station.

33. (Amended) [The mobile station of claim 31] A mobile station comprising:
a transceiver for transmitting and receiving radio frequency signals;
a signal processor operatively connected to said transceiver for periodically
performing channel quality measurements on selected signals received by
said transceiver;
control logic for controlling said signal processor and said transceiver to vary the
frequency of performing said channel quality measurements as a function of
the position of said mobile station; and
wherein said control logic varies the frequency of performing said channel quality measurements based on the relative position of said mobile station with respect to a first base station serving said mobile station and at least one additional base station.

34. (Amended) The mobile station of claim [31] 33 wherein said control logic varies the frequency of performing said channel quality measurements based on the mobility of said mobile station.

35. (Amended) The mobile station of claim [34] 33 wherein said control logic varies the frequency of performing said channel quality measurements based on the rate of change of said position of said mobile station.

36. (Amended) [The mobile station of claim 34] A mobile station comprising:
a transceiver for transmitting and receiving radio frequency signals;
a signal processor operatively connected to said transceiver for periodically
performing channel quality measurements on selected signals received by
said transceiver;
control logic for controlling said signal processor and said transceiver to vary the
frequency of performing said channel quality measurements as a function of
the position of said mobile station; and
wherein said control logic varies the frequency of performing said channel quality
measurements based on the length of time said mobile station remains in
said position.

37. (Amended) The mobile station of claim [31] 33 further including a positioning
receiver for determining the position of said mobile station.

45. (Amended) The control method of claim [44] 49 wherein said frequency of
performing said periodic task is a function of the relative position of said mobile station
with respect to a first base station serving said mobile station.

46. (Amended) [The control method of claim 44] A method of controlling a mobile station comprising:

determining a position of said mobile station;

performing a periodic task, wherein the frequency of performing said task is a function of said position of said mobile station; and

wherein said frequency of performing said periodic task is a function of the relative position of said mobile station with respect to a first base station serving said mobile station and at least one additional base station.

47. (Amended) The control method of claim [44] 46 wherein said frequency of performing said periodic task is a function of the mobility of said mobile station.

49. (Amended) [The control method of claim 47] A method of controlling a mobile station comprising:

determining a position of said mobile station;

performing a periodic task, wherein the frequency of performing said task is a function of said position of said mobile station; and

wherein said frequency of performing said [channel quality measurements]

periodic task is a function of the length of time said mobile station remains in said position.